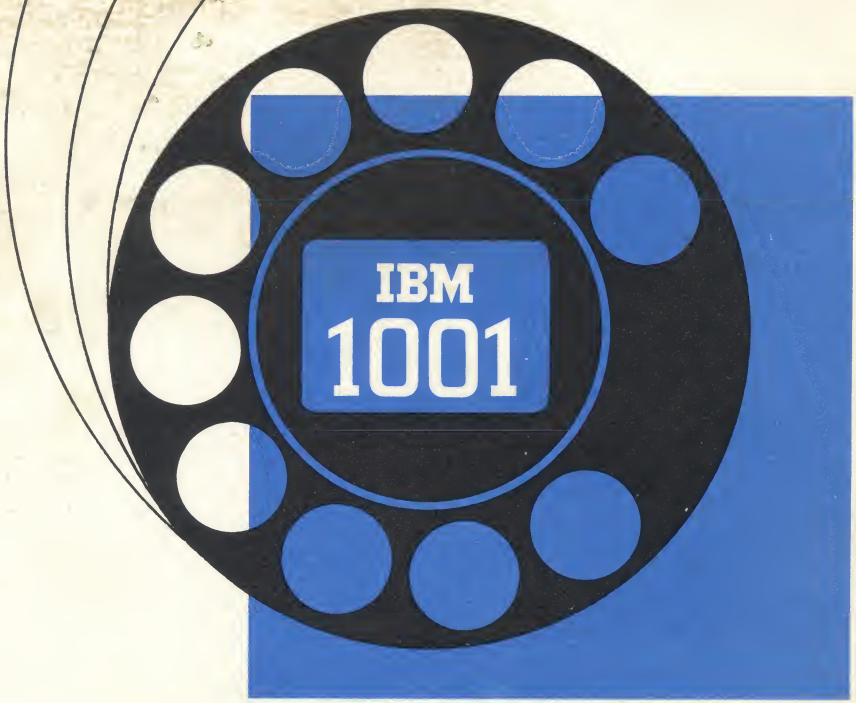
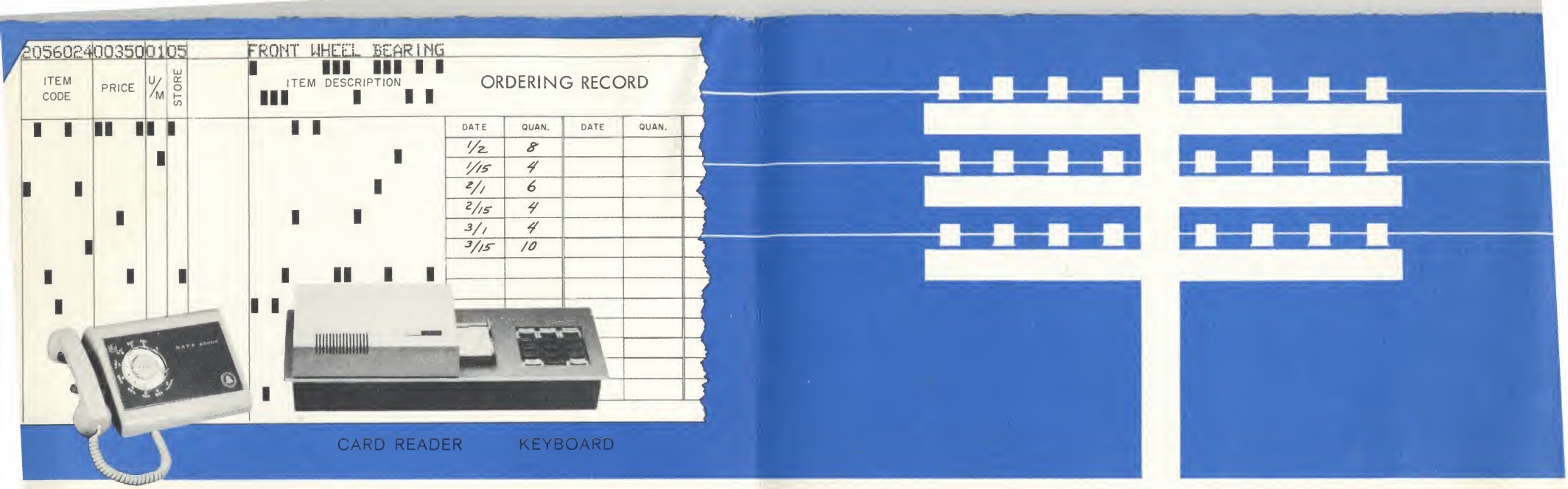
New economy in IBM TELE-PROCESSING* equipment

*Trademark



Data Transmission System



At Each Data-Originating (Transmitting) Point,

a simple card reader with combined keyboard permits automatic transmission of fixed numerical data from prepunched cards and variable numerical data entered manually. The keyboard also includes five operating keys for remote control of the card punch at the central location.

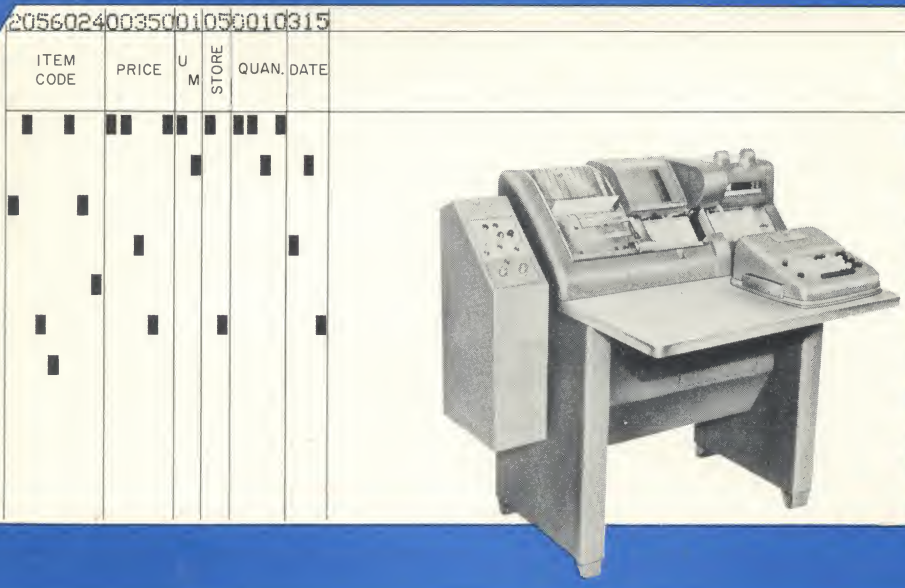
In preparation for transmission, prepunched cards—each representing an item to be requisitioned or reported—are pulled from a tub file. When connection with a card punch at the central point has been established, by conventional dialing techniques, these cards are inserted, one by one, into the card reader where they are read and transmitted at approximately 12 card columns per second. Variable data, such as quantity or price, may be manually keyed-in along with each card.

The IBM 1001 will transmit a maximum of 22 *numeric* characters from any one prepunched card. The remaining card columns may contain prepunched and interpreted *alphabetic* description data. Although this alphabetic data is *not* transmitted, it greatly facilitates visual use of the cards at the originating point.

At the Central Receiving Location,

the data transmitted from an originating point feeds into an IBM card punch through a Data Translator which converts the signals sent over the telephone circuits back into punched card code. The punch, either an IBM 24 or 26, automatically punches into cards both the data read from prepunched cards and the data manually keyed in at the remote station.

These cards may then be fed into an accounting machine to print shipping orders, invoices and other documents; or into a RAMAC or other type of



data processing system to update accounting and inventory records while also producing printed documents.

If the cards are punched on a 26 printing punch, the cards themselves may be used as documents for filling orders or for taking the required action.

If a high volume of cards is to be received within a short period, more than one punch may be installed. When not in use as a receiving station for the 1001 Data Transmission System, the punch may be used off-line for normal manual card punching.

The Data Translator permits the sending location to dial a receiving punch directly without the intervention of an operator at the central location. Thus transmission of data can be made at any hour of the day. If there are several punches at the central location, connection can be provided automatically to any available punch.

Hospital Charge Reporting

Application Details

Terminal units located at charge stations throughout the hospital transmit charges as incurred by each patient to the data processing center, where the punched cards produced are fed directly into an IBM RAMAC for updating patient accounts on a random basis.

If IBM unit record punched card equipment is used, the charge cards would be manually placed behind the proper patient's header card. At billing time these would be fed to an accounting machine which would head and print an itemized bill.

All data is transmitted from prepunched patient identification and charge code cards. Intra-building telephone lines are used for transmission.

Advantages of IBM 1001 to hospitals:

- All patient charge records are kept current.
- Eliminates billing of late charges after patient's discharge.
- Eliminates cost and trouble of collecting from discharged patients.
- Revenue analysis of charges by code is readily available.

Store Ordering of Frozen Foods

Application Details

Each store manager keeps a tub file of cards prepunched with the numerical code for each item stocked. Cards may be printed to provide for manager to keep a record of date and quantity ordered over a period of months. Latest notation could inform clerk operating the card reader of the quantity to be ordered. Manager makes up his order by pulling cards on items needed. Items with a quantity of one are segregated. These are fed into the card reader and are transmitted to the warehouse where they are received in punched card form.

Multiple quantity items are entered by keying the quantity manually and inserting the item card, or by manually keying both quantity and item code read visually from the card. The same 1001 data transmission terminal can also be used for connection with dairy, produce, bakery and other suppliers equipped with a receiving punch unit.

Advantages of IBM 1001 to food stores:

- Permits more timely and accurate ordering.
- Permits reduced inventories at stores.
- Orders are received in punched card form for machine billing and inventory accounting.
- Eliminates messenger pickup of orders.

Centralized Inventory Control

Application Details

Manufacturers of machine parts frequently find that certain high cost items are in demand only in some areas and are seldom called for in others. Warehouses in the latter areas carry only token balances of such items, but must know quickly where to locate ample quantities for order fulfillment when necessary. An IBM 1001 System transmitting data regularly from warehouses to an IBM RAMAC System at inventory control headquarters offers an excellent answer to this problem.

Each warehouse posts its receipts and shipments to manual files and transmits these transactions and new balances as they occur to the inventory center via the IBM 1001's terminals. This data, received in punched card form, is fed into an IBM RAMAC for in-line updating of inventory balances. The data transmitted is:

From prepunched cards—
Warehouse number
Product number

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From prepunched cards—
Warehouse number
Product number

From Keyboard—
Type of transaction and quantity received or shipped.
New balance
Order or receiving number

Advantages of IBM 1001 in centralized inventory control:

- Current reporting complements the in-line processing abilities of the RAMAC System.
- Eliminates numerous long distance telephone calls to locate items for order fulfillment.
- Low cost and simplicity of operation makes 1001 ideally suited for the application.

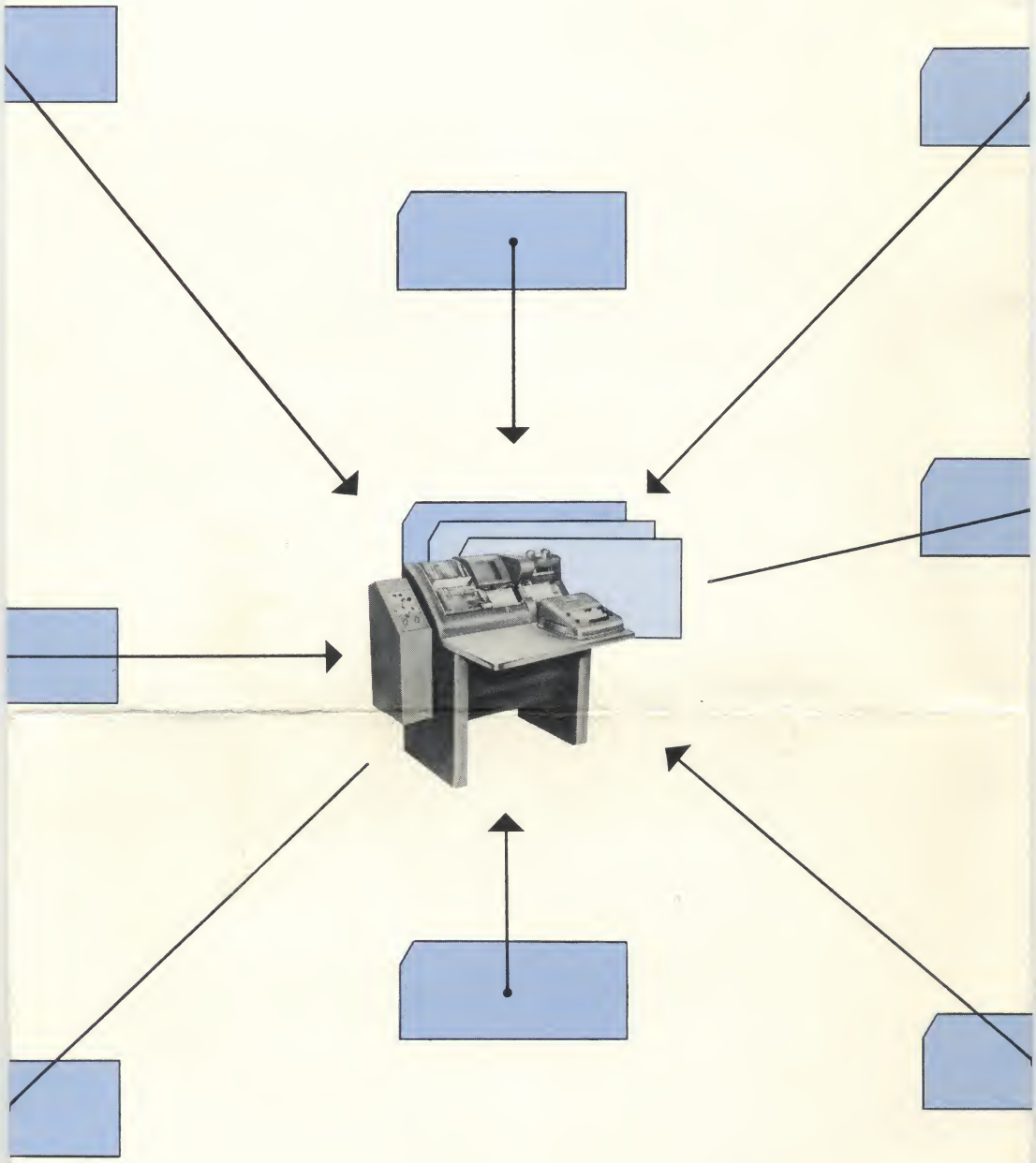
Stores Accounting [Public Utility]

Application Details

IBM 1001 feeds current data from various warehouses to an IBM data processing center. Prepunched cards are used for the more active items. Code numbers of less active items are manually keyed, using a self-checking number (24/26 optional feature) for accuracy.

Advantages of IBM 1001 combined with RAMAC:

- Permits reduction in costly inventory.
- Makes possible truly current inventory control.
- Increases reporting accuracy.
- Eliminates card punching at accounting center.



Centralized Payroll

Application Details

Various company locations throughout the country use mail and wire service to transmit payroll data on hourly workers to payroll headquarters. An IBM 1001 System permits each location to transmit via telephone lines to headquarters the following information which is received in punched card form:

From prepunched cards—
Location code
Department number

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From prepunched cards—
Location code
Department number
Man number

From Keyboard—
Type hours, hours worked

Advantages of IBM 1001 for centralized payroll:

- Payroll data is received directly at the processing location in punched card form ready for immediate machine use.
- Data can be received from remote points at any hour, day or night.
- System is low in cost, easy to operate, and makes really practical the centralization of payroll.
- Replaces manual punching of data into cards at receiving point and relieves operators for other duties.

Utility Cash Reporting

Application Details

Branch offices of the public utilities collect bills and deposit cash locally but customers do not receive credit until prepunched bill stubs are received at headquarters.

Using an IBM 1001 Data Transmission System, a terminal at each branch office (or at those offices not reached by a messenger pickup service) permits direct use of prepunched bill stubs to transmit collection details to billing headquarters on the same day. Only control totals and partial payments need be keyed-in manually. Public telephone lines are used as the transmission medium.

Advantages of IBM 1001 to utilities:

- Customer accounts are updated as much as two days earlier.
- Eliminates customer irritation caused by delinquent billing of customers who have just paid their bills.
- Eliminates cost of preparing unnecessary delinquent bills.

Student Attendance Reporting

Application Details

It is highly important that accurate student attendance records be reported daily by every department within a college or every school within a system. The IBM 1001 provides an excellent means of centralizing attendance recording on low-cost IBM equipment at the business office.

Each department or school is equipped with a 1001 Transmission Terminal. Instructors are provided with a prepunched student card for each student for each class period. These cards contain, student number, department or school number, class number and class period.

To report an absence, the instructor simply selects the student's card for that period. Absence cards are picked up periodically by a messenger and taken to the local attendance office. Here they are transmitted via the 1001 to the central business office where the data is punched into new cards. The new cards are used to prepare printed reports on other IBM equipment, while the original cards are returned to the instructors through their mail boxes.

When all cards for a student have been machine-sorted into period sequence, and have been printed in a report, it is easy to spot cases of class cutting.

Advantages of IBM 1001 in student attendance reporting:

- A complete absence list is available to the school attendance officer each day.
- Clerical work by instructors is reduced.
- Cuts are readily detected.
- Accuracy is improved by standardization and elimination of transcription errors.
- The 1001 is readily adaptable to such other applications as instructors' payroll and supplies requisitioning.

Salesman's Order Procedure

Application Details

Salesmen servicing such accounts as retail drug stores, liquor stores, filling stations, etc., have many detailed orders to turn in to the distribution point at each day's end. Traditionally, this is done by:

1. Personal visit, requiring time and mileage;
2. Telephone, entailing overtime clerical help to take down orders;
3. Mailing written orders, often resulting in delays of 24 hours.

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The IBM 1001 provides an accurate, fast and economical means of automating order entry. The manufacturer installs a 1001 Transmission Terminal in each salesman's home. Using prepunched cards and the manual keyboard, the salesman transmits his orders during the evening to the distribution point, where they are received in punched card form. This makes possible machine writing of stock picking lists, invoices, etc., the first thing in the morning.

Advantages of IBM 1001 in salesman's order procedure:

- Expedites order entry for faster customer service.
- Orders are received in machine-processable form.
- Elimination of transcription errors increases accuracy.
- Ability to dial receiving punch directly obviates need for overtime clerical personnel.

Transmit data in machine language

. . . using regular telephone lines!

Here is transmission of fixed and variable data . . . in machine language . . . at any hour . . . with maximum simplicity and minimum cost! Existing telephone lines—local, long distance or private—are used to carry the data from multiple points of origin to a central point where it is received in the form of punched cards. These cards can be entered directly into an IBM data processing system to automate requisitioning, billing, inventory control, etc. The equipment can be readily handled at the transmitting point by clerical personnel.

The IBM 1001 Data Transmission System perfectly complements the in-line processing abilities of an IBM RAMAC® System, enabling it to maintain current, accurate records of transactions periodically reported from many scattered locations. Some typical applications are outlined on the inside spread.

IBM®

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